

Drawing boards

Drawing boards are made to align with standard paper sizes with the larger types being 1 279 x 920mm. They may be commercially made with sliding and pivoting 'T'-squares and/or arms or hand made from suitable timbers, such as Western red cedar for the board and coachwood for the 'T'-square. The most suitable and convenient for use in trade drawing work is the commercially made hard plastic type with sliding square, such as those made by "Rotring" and "Faber-Castell", measuring 493 x 373mm.

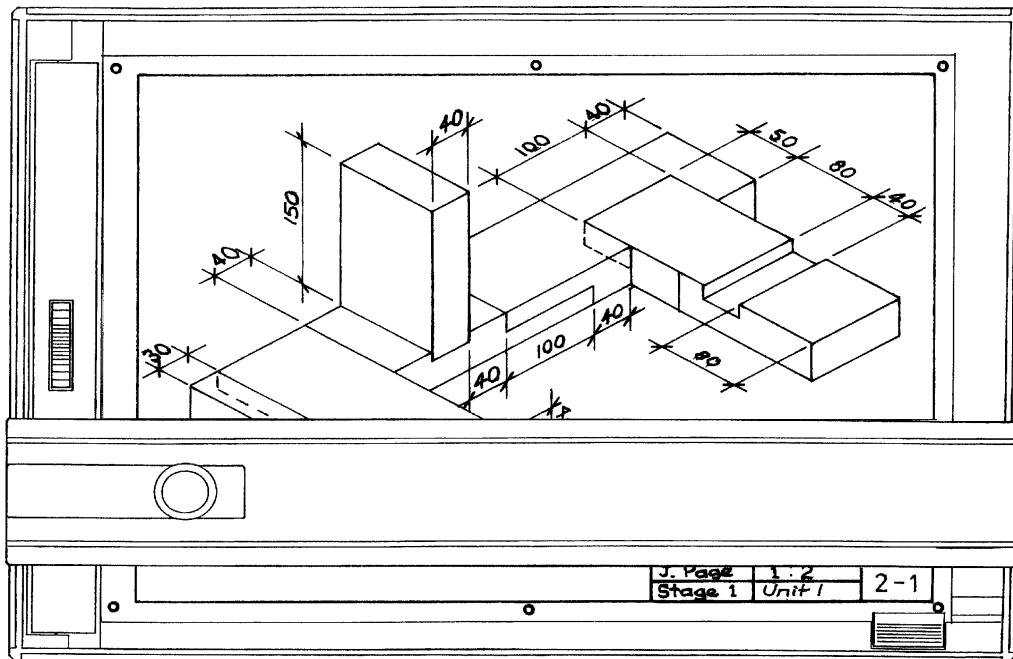


Fig. 100 Typical portable drawing board for use with A3 and A4 paper

Pencils

Standard drawing pencils are made of a soft hexagonal shaped timber with a centre of compressed clay and graphite called the 'lead'. Other common types available are called 'clutch pencils', which are made up of a hollow plastic tube with a spring loaded set of clutching jaws, to hold the replaceable lead.

The leads range in hardness from the very hard 9H to the medium F to the very soft 6B. The most versatile pencils, used for general drawing, are the HB or F. The leads should be kept sharp at all times, to allow for accurate work, and may be touched-up by rolling the tip across a fine piece of sandpaper. The following detail outlines the range of pencils available:

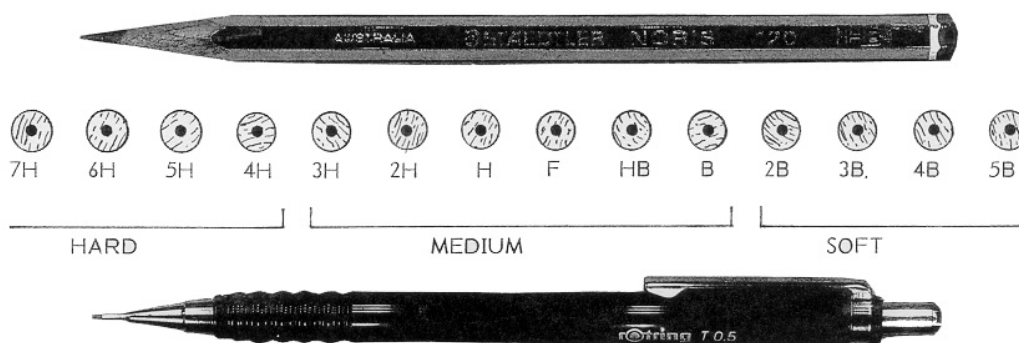


Fig. 101 Pencil types and uses

Set-squares

Set-squares are triangular-shaped instruments consisting of 45° and 90° angles or 60°, 30° and 90° angles, used in conjunction with the drawing board 'T'-square to draw vertical and inclined lines. They are usually made of flexible clear plastic, approx. 1.5mm thick, and have square or raised edges. Another type available is the adjustable set-square, which has a fixed 90° angle and a long side which can be adjusted to suit any angle between 0 and 90°.

Note: To prevent the ink bleeding under the set-square edge, when using ink pens, a light chamfer may be taken off all edges on one side or strips of clear tape may be run along all sides approx. 2mm in from each edge.

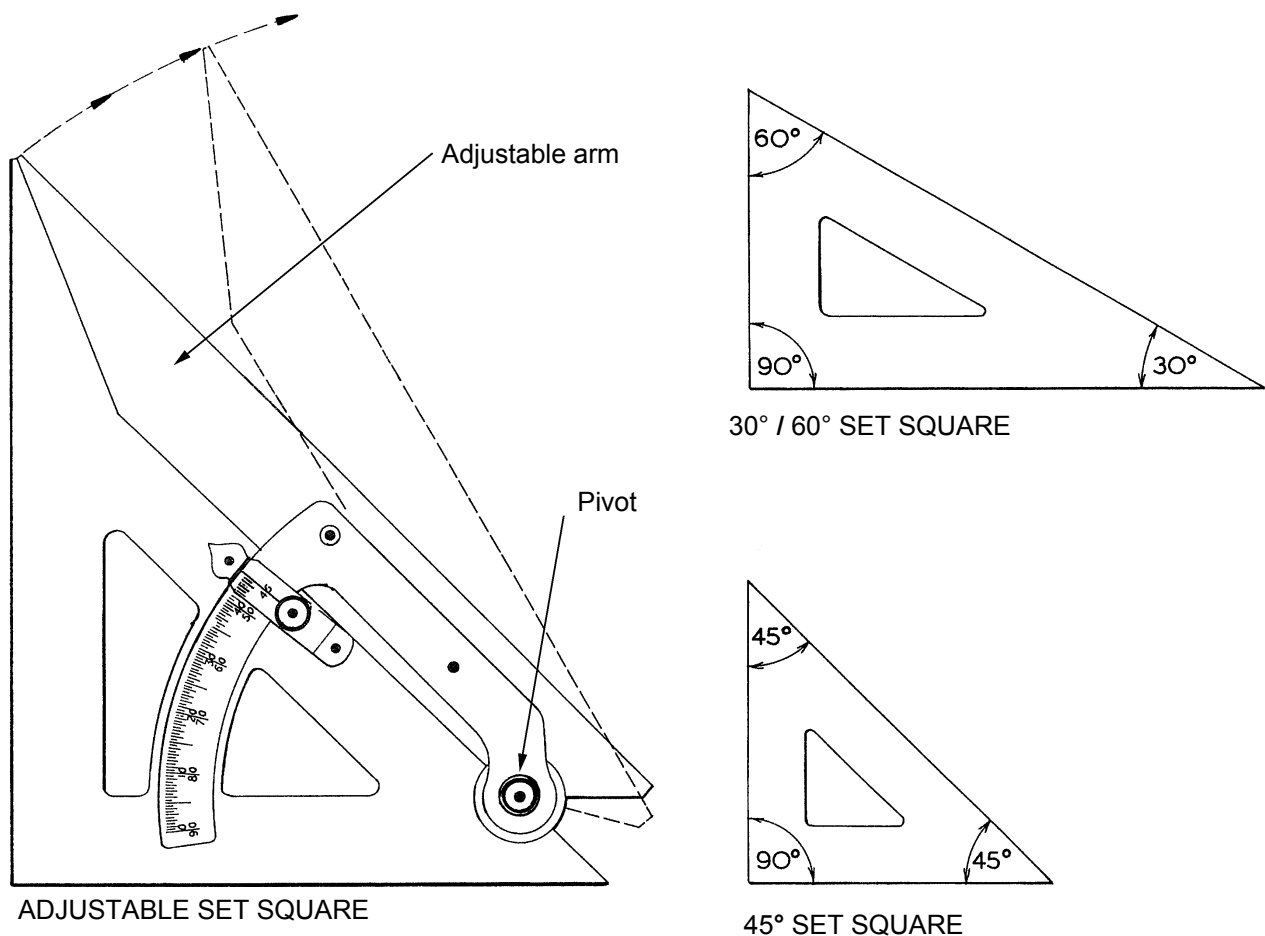


Fig. 102 Common types of set-squares

Scale rule

Common scale rules are made of solid plastic, or have a timber core and a plastic coating, and are approx. 328mm long, with only a 300mm long section marked with 1mm graduations.

Each edge of the rule has up to two scales on it in the proportions of:

1:1 and 1:5, 1:10 and 1:100, 1:20 and 1:200, 1:50 and 1:500.

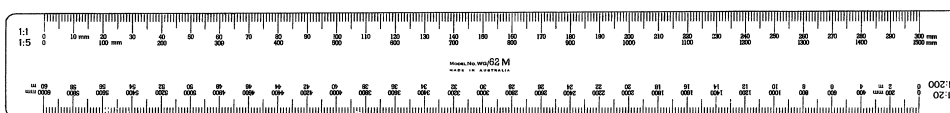


Fig. 103 Typical scale rule

Scaled Drawing

This is one which has been reduced, or enlarged, from its original full size to fit a particular size sheet of paper and to suit a nominated scale. These drawings are used to present detail and information when the real life object is too big, or too small, to be easily viewed. All building house plans are drawn to scale, as are the plans for a complete suburban development. Other items may be constructed to scale for the same reasons of convenience, such as construction models made by Architects. A scaled detailed drawing is shown below:

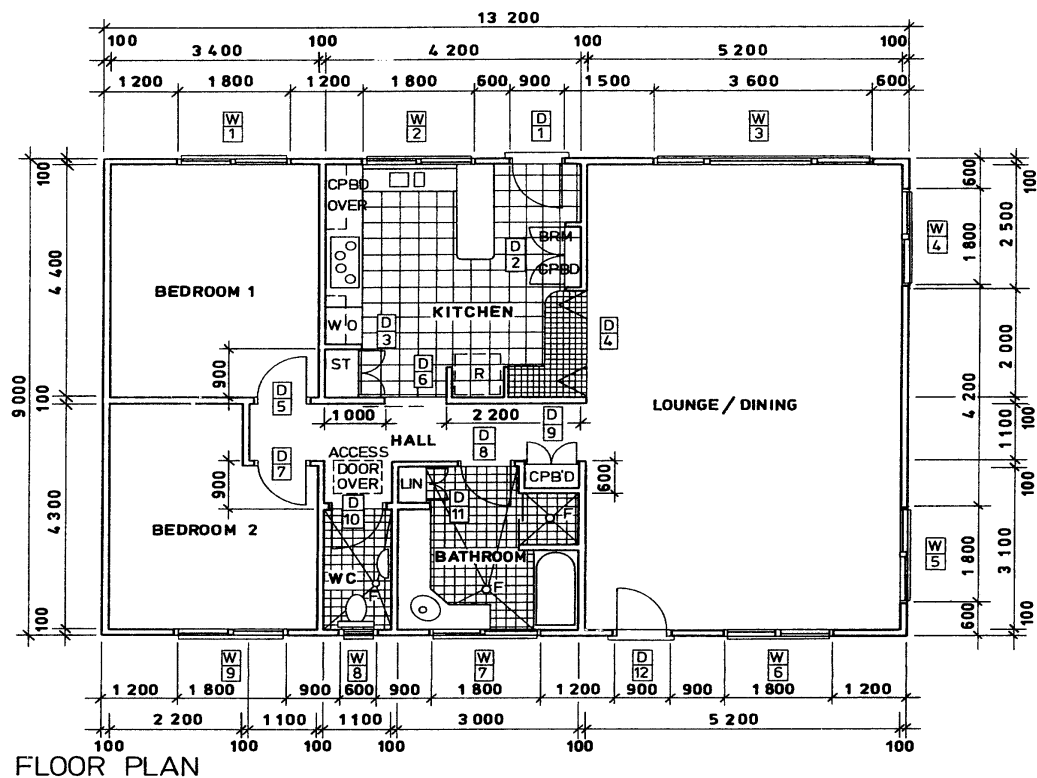


Fig. 104 Typical scaled detail - scale approx. 1:125

Compass

This instrument is used to draw circles, arcs, mark off lengths of arcs and is also used to bisect lines. The most commonly used type is the 'Spring Bow' compass, which has a top section held under spring tension, which may be adjusted by simply turning an adjustable threaded screw in the centre. These compasses may be fitted with a 'beam' or extension arm to allow for greater radii. Other attachments include a holder for ink pens and additional point, so the compass may be used as a set of dividers. All these pieces, including the bow compass, are available in sets.

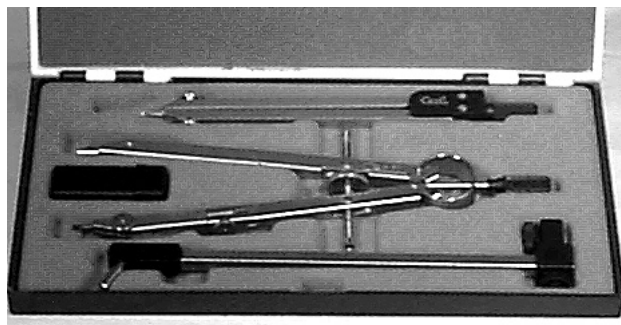


Fig. 105 Bow compass and extension arm

OTHER IMPORTANT DRAWING EQUIPMENT

- **Eraser** - Corrections or complete removal of pencil lines and smudges may be made using a soft rubber or vinyl eraser. Keep the eraser wrapped up as contact with graphite and dirt will impede its effectiveness. Ink may be removed by using a hard eraser, scraping with a safety razor blade or using an electrically operated eraser;
- **Protractors** - Made from clear or coloured plastic, circular or semi-circular in shape, used to measure or set out angles. The circumference is marked off in degrees with gradient lines all angled back towards the centre point to allow accurate marking and reading;
- **French curves** Made of clear plastic with a variety of convex and concave curved shapes, which form complex, irregular curves which cannot easily be drawn with a compass. It provides a very useful template for use with a pencil or ink pens; and
- **Technical pens** - These pens are available in re-fill and throw away cartridge types in common brands such as 'Rotring' and 'Faber-Castell'. Quick-drying ink should be used to avoid smearing and bleeding of the ink, especially when the paper has a texture.

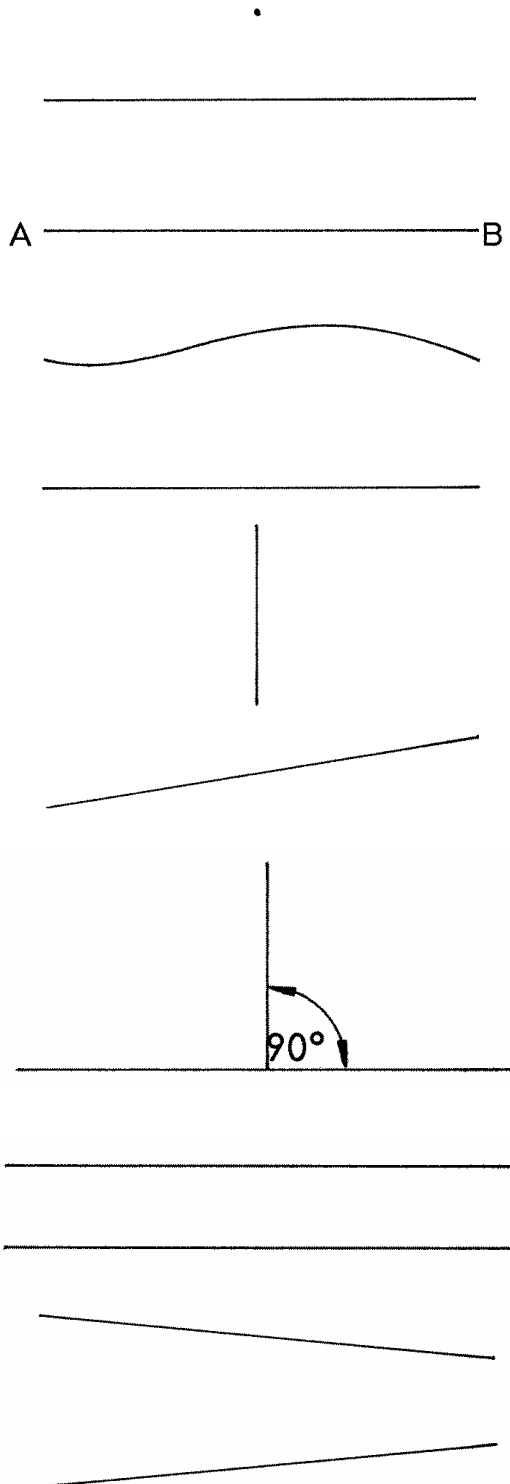


Fig. 106 Additional drawing equipment

INTRODUCTION TO BASIC GEOMETRY

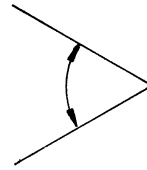
Definitions of Lines:

1. A *Point* has position but no size.
2. A *Line* is the path traced by a moving point.
3. A *Straight Line* is the shortest distance between two points.
4. A *Curved Line* changes direction at every point.
5. A *Horizontal Line* is one which is level.
6. A *Vertical Line* is one which is plumb or upright.
7. An *Oblique Line* is neither horizontal or vertical.
8. A *Perpendicular Line* is one drawn at 90° to another.
9. *Parallel Lines* are lines which run in the same direction and if extended, would not meet.
10. *Convergent Lines* are lines which run in the same direction and if extended, would meet.
11. A *Surface* has length and breadth, but no thickness.
12. A *Plane Surface* is one which is perfectly flat.

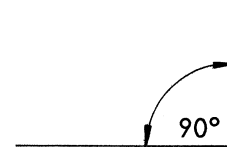


DEFINITIONS OF ANGLES:

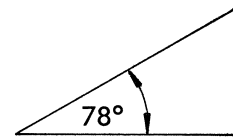
13. An *Angle* is formed where two lines meet.



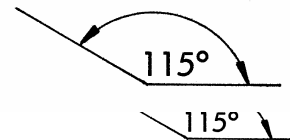
14. A *Right Angle* is formed where one line is perpendicular to another.



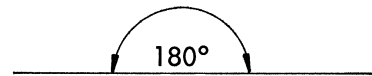
15. An *Acute Angle* is one which is less than 90° .



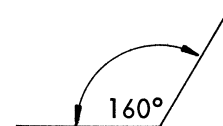
16. An *Obtuse Angle* is one which is greater than 90° and less than 180° .



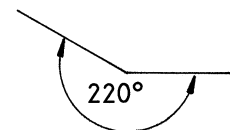
17. A *Straight Angle* is one which contains 180° .



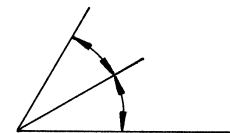
18. A *Re-entrant Angle* is one which is less than 180° .



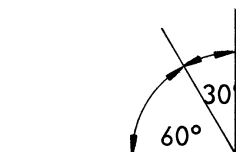
19. A *Reflex Angle* contains more than 180° but less than 360° .



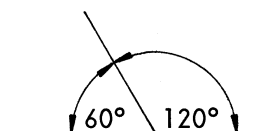
20. *Adjacent Angles* are found on opposite sides of a common line.



21. *Complementary Angles* make up 90° when added together.



22. *Supplementary Angles* make up 180° when added together.



BASIC PLANE GEOMETRY

Dividing and Bisecting

The most common way of dividing lines into equal parts is to:

- use dividers with the 'trial and error' method by stepping out the required number of divisions with an estimated spacing and simply adjusting that spacing until the divisions are all equal:

Or

- using a rule laid between two extended perpendicular lines, slide the rule to an angle which provides a suitable measurement which may be accurately divided by the required number of divisions. Draw a light line along the edge of the rule and mark off the required spacings. From these marks draw perpendicular lines down to the line which is to be divided, as shown below:

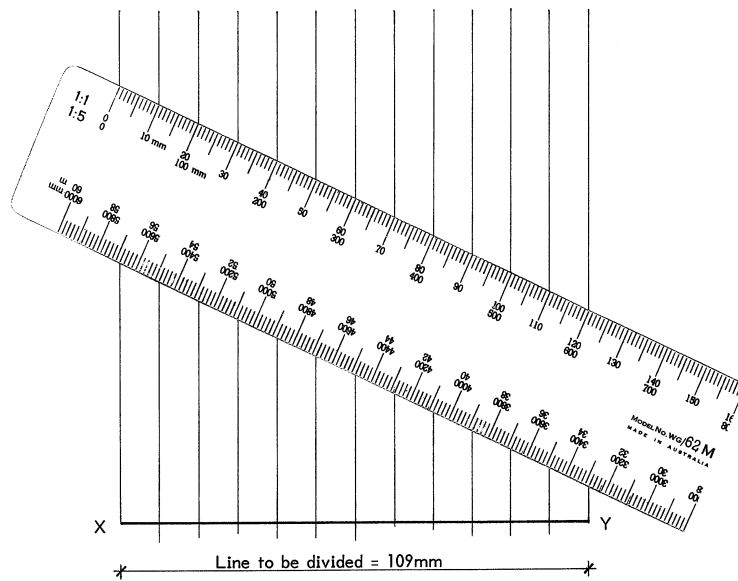


Fig. 107 Using a rule to divide up a line into 12 spaces

Or

- draw a line at any angle from one end of the line to be divided. Using any equal measurement, mark off the required number of spacings along the angled line. Join the last mark to the end opposite the starting point. Use the angle of this line to transfer the other spacings down to the desired line, keeping the lines parallel, as shown below:

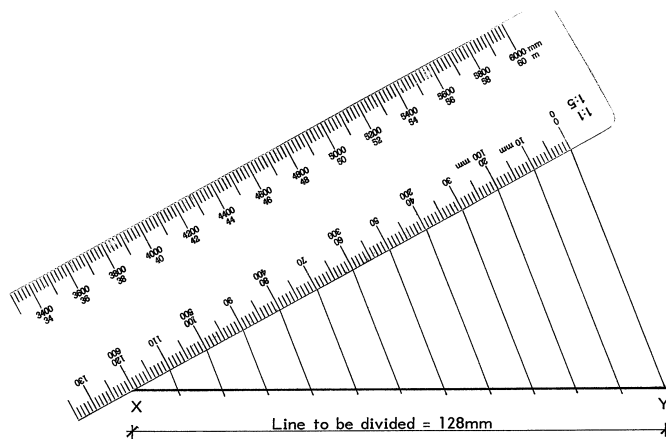


Fig. 108 Alternative method used to divide up a line into 12 spaces

- lines may be bisected, accurately cut in half, by using a compass. The compass point is placed on one end of the line to be bisected and opened up until the radius is just past the estimated mid length. Using this radius draw an arc from one side to cut through the line, then using the same radius place the point on the other end of the line and draw another arc. Draw a line between the points where the arcs cross. Where the line passes through the desired line will be the exact centre.

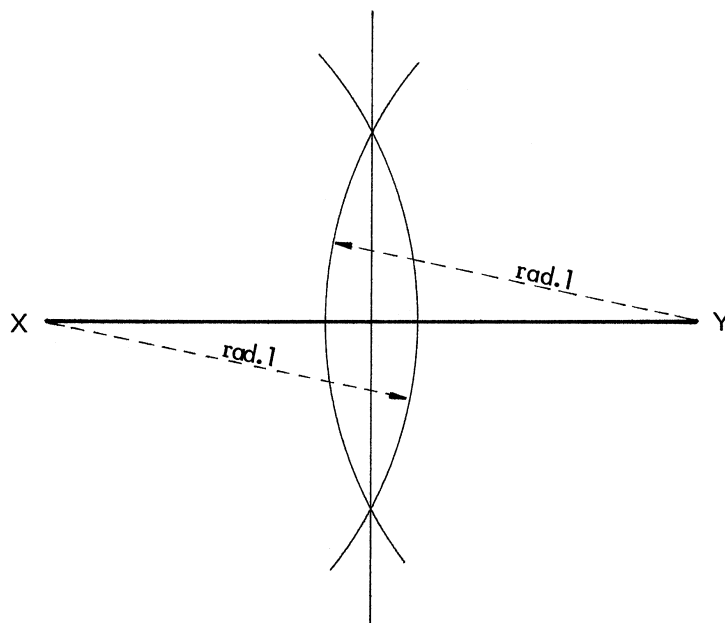


Fig. 109 Bisecting a line using a compass

- angles may also be bisected using a compass. Place the point of the compass on the point of the angle to be bisected, open it out to any radius and draw an arc, which passes through both sides of the angle. Place the point of the compass where the arc has crossed one side, draw an arc in the space between the two angle sides. Repeat this operation from the other side of the angle. Draw a line from the point of the angle to pass through the point where the arcs cross. This will create complementary or equal angles.

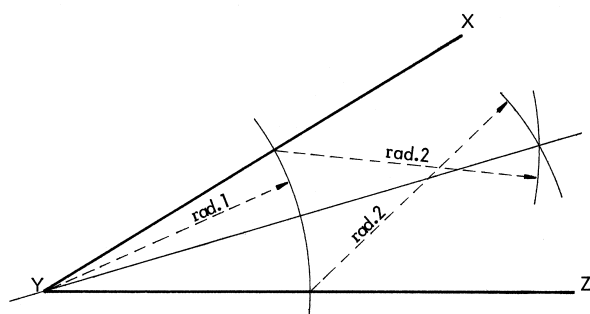


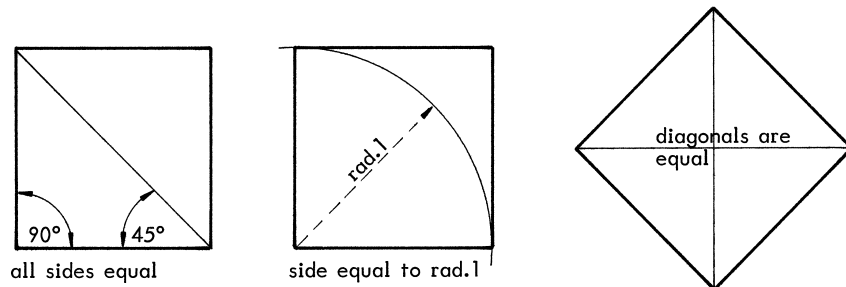
Fig. 110 Bisecting an angle using a compass

Squares

Squares have four equal sides, opposite sides are parallel to one another, all four angles formed will be 90° and the angle of the line taken diagonally from one corner to another will be 45° .

Note: All four sided figures are known as 'Quadrilaterals'.

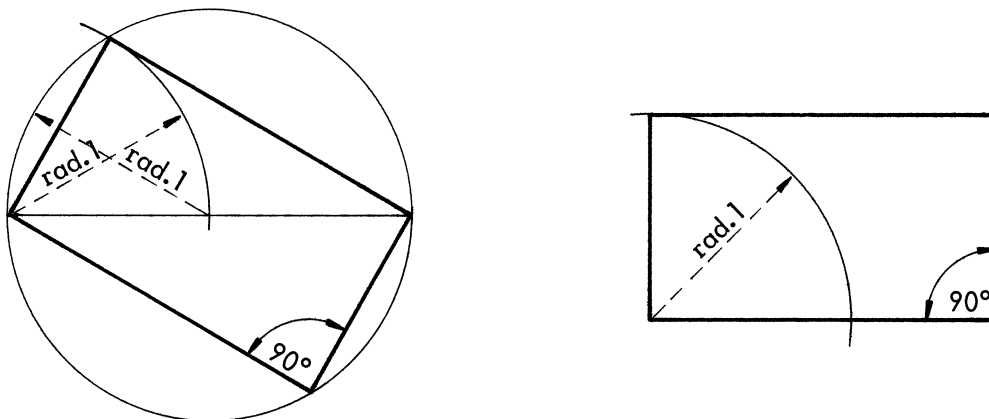
The following details outline the various methods used to draw a square:



Rectangles

Rectangles have four sides, opposite sides are parallel to one another and are equal. All four angles formed will be 90° .

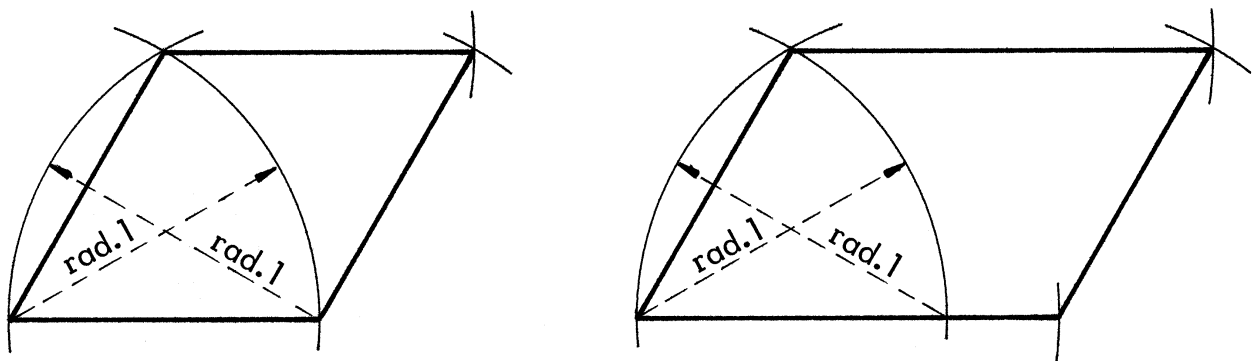
The following details outline the various methods used to draw a rectangle;



Rhomboid

Rhomboids have four sides, opposite sides are parallel to one another and are equal. None of the angles formed will be 90° . Where all four sides are of equal length the shape is called a 'Rhombus'.

The following details outline the various methods used to draw a rhomboid:



Triangles

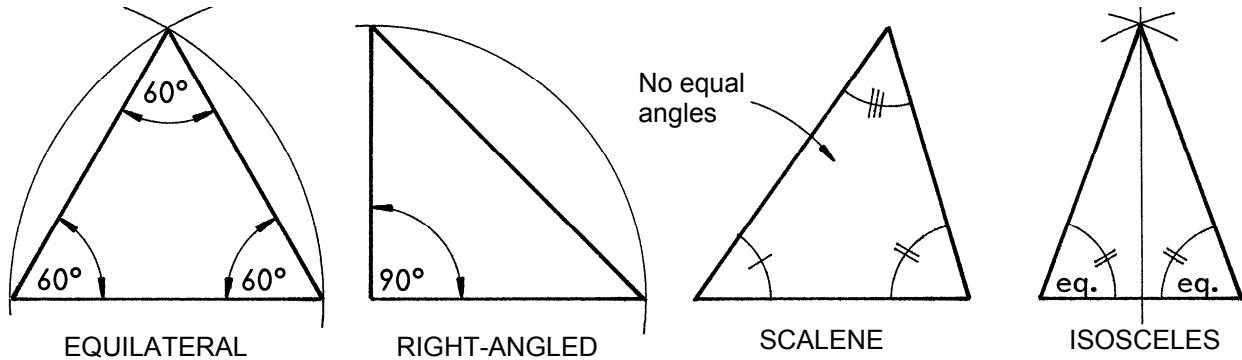
Equilateral triangles have three equal sides and all three angles are 60° .

Isosceles triangles have two equal sides and two equal angles.

Right Angled triangles have three unequal sides but two of the sides are set at 90° .

Scalene triangles have three unequal sides and three unequal angles.

The following details show the different types:



Circles

Circles are drawn using a compass with a fixed radius. The shape is made up of 360° which can be broken down to form parts of a circle having specific names, such as:

- Arc - part of the circumference other than a semi-circle;
- Chord - this is a straight line which terminates at the circumference, at both ends, but is less than the length of the diameter;
- Circumference - this is the curved line formed at an equal distance from the centre which forms the circle's shape;
- Diameter - this is the straight line length taken through the centre which terminates at the circumference at both ends;
- Normal - this is a straight line drawn from any point on the circumference which is radial to the centre of the circle;
- Quadrant - this is a quarter of the whole circle made up of a 90° between two radii and an arc on the other side;
- Radius - this is the length of a straight line drawn from the centre to the circumference of the circle;
- Radial - any radius line around the circle which is used to divide up the circumference such as the sides of a slice of cake or pie;
- Sector - part of a circle formed by two radii and an arc;
- Segment - part of a circle contained between a chord and an arc of the;
- Semi-circle - exactly half of a full circle made up of the diameter and half the circumference which contains 180° ; and
- Tangent - a straight line which touches the circumference of a circle and is set at 90° to a normal.

The following details shows all these terms and where they may be found:

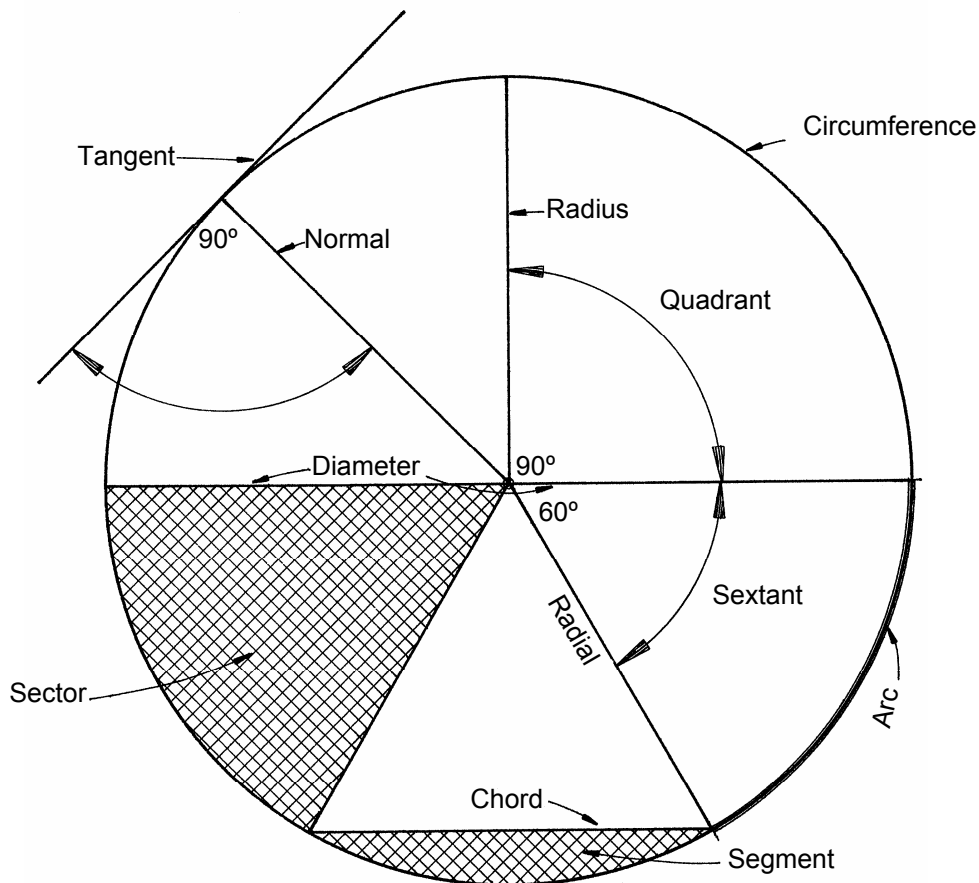
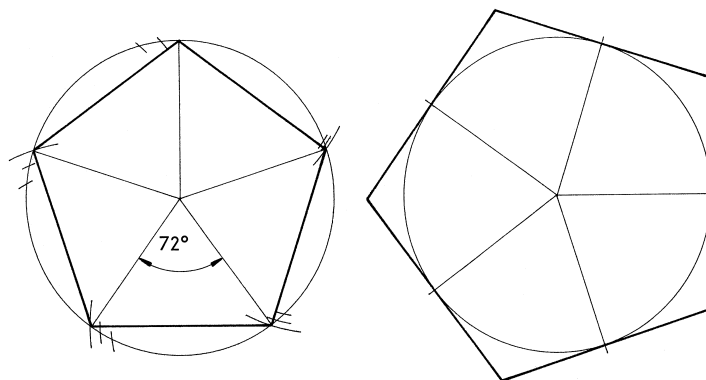


Fig. 111 Parts of a circle

REGULAR POLYGONS

Pentagon

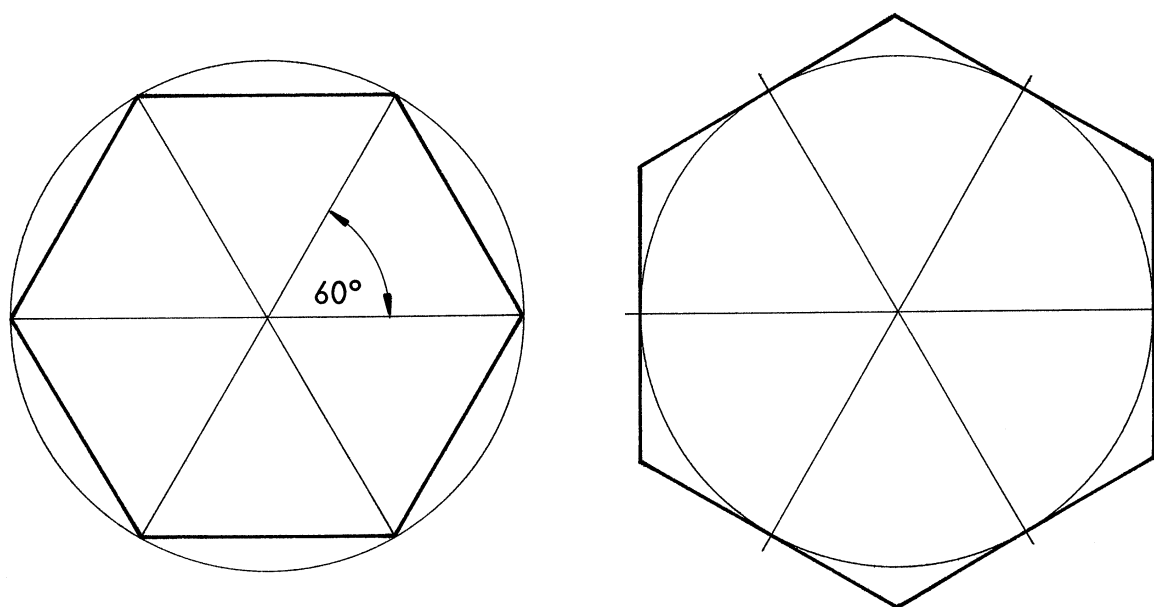
Pentagons have five equal length sides with each pair of the sides forming an angle, which is equal to one fifth or 20% of a full circle, i.e. 72° . The simplest way to draw a pentagon is to firstly draw a circle, then divide the circumference up into five equal parts using a pair of dividers or a compass. If the base is to be horizontal, start the divisions from top centre of the circle.



Hexagon

Hexagons have six equal length sides with each pair of the sides forming an angle, which is equal to one sixth of a full circle, i.e. 60° . The simplest way to draw a hexagon is to firstly draw a circle, draw a horizontal line through the centre, then draw two lines at 60° through the centre.

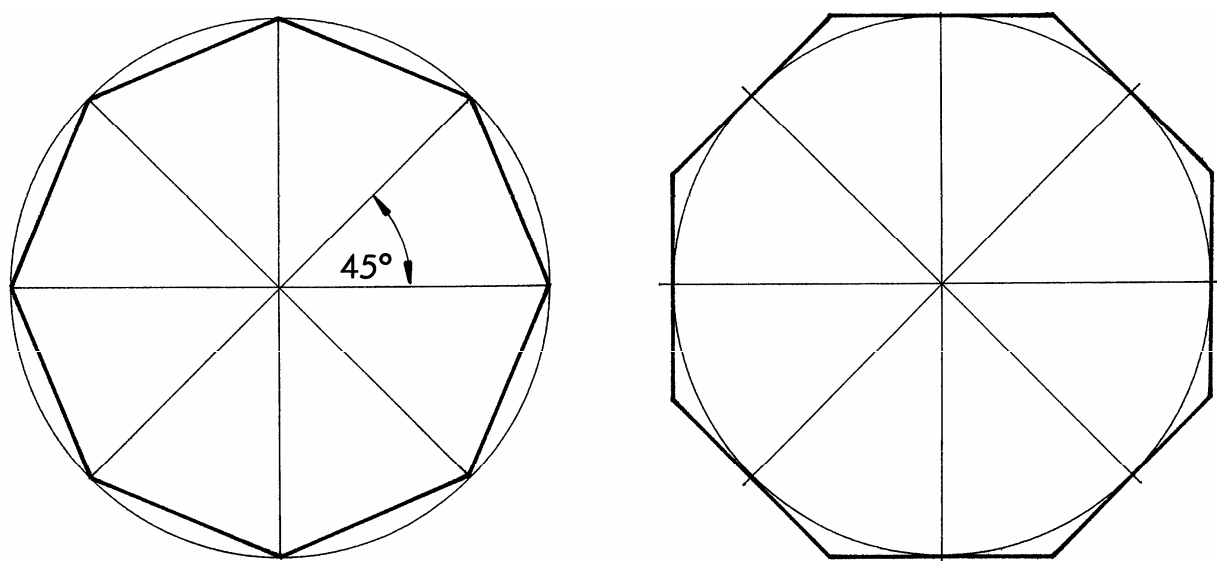
This method will give a horizontal base also:



Octagon

Octagons have eight equal length sides with each pair of the sides forming an angle, which is equal to one eighth of a full circle, i.e. 45° . The simplest way to draw an octagon is to firstly draw a circle, draw horizontal and vertical lines through the centre, then draw two lines at 45° through the centre.

If a horizontal base is required, draw a tangent to the ends of all the above lines:



GLOSSARY OF TERMS

<i>Adobe</i> -	Roughly moulded and sun-dried blocks made from puddled or wet rammed clay, and chopped straw used for earth-wall construction.
<i>Aqueduct</i> -	A water supply channel which is usually elevated. Commonly built during the Roman Empire time.
<i>Art Deco</i> -	A period of architecture and art development which occurred during the 1920's to 30's. It was based around geometric and symmetrical design using a great deal of Egyptian-inspired motifs.
<i>Art Nouveau</i> -	A period of architecture and art development, which occurred during the late 1890's to 1920's. It used asymmetrical design based on plant form motifs.
<i>Asbestos</i> -	A naturally occurring mineral fibre, which was mined during the course of the 20 th century and used for over 3000 products in Australia alone. It is classified as a hazardous material and is no longer used.
<i>Barge</i> -	Also called a 'Bargeboard', is a plain or decorated sloping board fixed to a verge or projecting gable to finish off the roof surface.
<i>Barrel vault</i> -	This is the simplest form of masonry vault or curved surface, usually rectangular on plan, which forms the sides and roof in the one continuous curved shape.
<i>Bisect</i> -	To cut an object, line or surface into two equal parts. This may be done using a compass or by measurement.
<i>Bungalow style</i> -	A single-storey cottage or house often surrounded by a verandah which originated in India. It was modified during the 1920's and 30's and had a gable or hipped roof with a porch at the front supported on pillars. This style became known as the 'Californian bungalow'.
<i>Buttress</i> -	A projecting masonry structure used to give additional strength to walls of buildings or the sides of bridges. Depending on its position and use it may be known by several names such as <i>Flying</i> , <i>Angle</i> , <i>Clasping</i> , <i>Pier</i> or <i>Setback</i> buttress.
<i>C.A.D.</i> -	Computer Aided Drafting. A computer software package designed to make drawing and designing quicker and easier.
<i>Cavity walling</i> -	A exterior walling system, dating back to 1868 in Australia, which is made up of an internal and an external skin of masonry separated by a gap or 'cavity', which is normally 50mm.
<i>Cellulose</i> -	It is one of the main constituents of timber made up of thousands of glucose molecular units joined end to end to form long chains. It consists of carbon, hydrogen and oxygen.
<i>Chattering</i> -	This occurs when the cutting edge of a plane blade jumps rapidly on the timber because it is blunt or the plane is being used against-the-grain.
<i>Cherry-picker</i> -	An elevated work platform operated by hydraulic means and used to reach high awkward places. They are usually mobile with a pivoting boom.
<i>Colorbond</i> -	This is an industrial finishing process carried out on mild steel to provide a long lasting protective finish. It consists of a build up of coats of 'zincalume', a bonding agent, an epoxy primer and an oven baked coating with colour pigments.

<i>Concrete cancer -</i>	This is a term applied to reinforced concrete where the steel reinforcement is attacked by rust, due to a lack of concrete cover, and causes it to flake which blows the surface of the concrete. It will continue if it is not cut out or treated.
<i>Cots -</i>	Also known as 'finger stalls', they are made from cotton, leather or latex and are designed to protect the fingers. Bricklayers may use leather cots to prevent the abrasive brick material from wearing the skin off their fingers, during brick handling.
<i>D.P.C. -</i>	Damp-Proof-Course, which is an impervious material placed in walls to prevent the rise or fall of moisture.
<i>Dunnage -</i>	Also known as 'gluts', strips or blocks of material used to lift perishable materials off the ground or to separate materials during storage or transportation.
<i>Edwardian style -</i>	Refers to an architectural period which covers the reign of King Edward the VII (7 th) from 1901 to 1910. It aligns with the height of the Australian Federation period.
<i>Egg beater -</i>	A term often used, euphemistically, to describe a simple hand drill.
<i>Fascia -</i>	Also called a 'Fascia board', is a plain or moulded horizontal board fixed to the ends of the roof rafters to finish off the roof around the perimeter and provide a suitable surface for fixing gutter.
<i>Federation style -</i>	The common style of Australian architecture, which was current during the time of the federation of the states of Australia. The main period being from the 1890's right through to the 1940's, it encompassed a large number of styles and is therefore not a true architectural style in itself, but rather a period of change in architecture within Australia.
<i>Fibrous plaster -</i>	Made from the composition of gypsum plaster and a fibre reinforcement such as sisal, hemp, flax or fibreglass, cast in sheets to form a suitable material for lining walls.
<i>Fix-out -</i>	A stage during construction where fixings are fitted. These include door jambs, skirtings, architraves, mouldings, etc.
<i>Flush -</i>	A term used to describe the surfaces of joined materials or fittings, i.e. if the surfaces are in-line they are considered to be flush.
<i>Fungicide-</i>	A solution or dust which may be applied to surfaces, mixed with water or paints to destroy fungal growths, moulds and mildew.
<i>Gang-nail plate -</i>	A patent type of metal plate fastener having a large number of nail-like projections. These plates may be hammered, but are normally pressed into timber to connect lengths together, such as in a roof truss.
<i>Gantt -</i>	A bar chart used to show activities and the time they should, and do take, to complete. The bar chart may also be called a 'Gantt chart', named after it's originator.
<i>Glut -</i>	see <i>Dunnage</i> .
<i>'Green' material -</i>	This refers to the state of material where it contains a high amount of moisture prior to setting or drying. E.g. it may be used to refer to green timber (freshly sawn or unseasoned), green brickwork (bricks which have just been laid), green concrete (concrete which has just been placed), etc.
<i>Heading -</i>	A term used to describe the dressing up of screw heads in their finished position. When using slotted head screws, all the slots should be in-line or running in the same direction.

<i>Hebel block</i> -	A building product developed by Josef Hebel which combines sand, lime and cement with a gas forming agent, which is autoclaved to form a strong lightweight building block.
<i>H.E.P.A. filter</i> -	High Efficiency Particulate Air filter used in a respirator to prevent very fine particles from being breathed in during work operations. Particularly efficient when working with asbestos fibre.
<i>Herbicide</i> -	Particularly useful when mixed with an algicide and applied to lichen.
<i>Hierarchy</i> -	A body of people or things ranked in grade, e.g. from the strongest to the weakest, the most important to the least important, etc.
<i>In-situ</i> -	Refers to materials being placed into final position or into 'situation', e.g. concrete, which is poured into formwork, is said to be 'placed in-situ'.
<i>Intumescent</i> -	Refers to the action of foaming or swelling up of a member or substance, e.g. intumescent paint is one which is fire resistant as it foams up when heated and smothers the surface with a gas, which will not allow the base material to ignite.
<i>Kerf</i> -	This is the gap or groove caused by a saw when cutting timber. Also referred to as the 'saw kerf'.
<i>Lignin</i> -	Apart from cellulose and hemicellulose, lignin makes up the other major part of timber. It is the fibrous material which holds the cells or pores together.
<i>Linisher</i> -	A flat belt type sander used to remove material quickly and provide a flat surface ready for final sanding.
<i>Mexican Pueblo</i> -	Literally means a town from Mexico. It is a reference to a particular architectural style based on buildings found at the Mexican-American border and was the main influence on the <i>Spanish Mission</i> style.
<i>N.E.S.B.</i> -	Non-English Speaking Background. Refers to people who have English as a second language who have migrated from another country.
<i>Opacity</i> -	A term used in painting and decorating which refers to the density of paint or its ability to prevent light passing through it, its covering power or how <i>opaque</i> the paint is.
<i>Osmosis</i> -	This is the process of drawing in moisture and minerals from the soil by the roots of a tree.
<i>Papyrus</i> -	An aquatic plant found in Egypt which has been used for art and architectural decoration, especially during the Art Deco period.
<i>Party wall</i> -	The wall between two adjoining buildings or occupancies to provide structure, security and the spread of fire. Typically found in <i>duplex</i> cottages.
<i>Pendentive</i> -	A concave triangular section used to support a dome shape on four sides. Found in building architecture of the Byzantine period.
<i>Pergola</i> -	An open roofed framed structure attached to another structure, which forms a terrace, patio or cover over a path. Different to a <i>Pagoda</i> , which is similar but is always free standing and usually set in the middle of a yard.
<i>Photosynthesis</i> -	This is the action which takes place in the canopy of a tree where an exchange of gases occurs and mixes with water, due to the action of the sun, to form carbohydrates, which in turn provides food for the tree.

<i>Plasterboard -</i>	A rigid lining sheet made from a gypsum core covered with thick paper or heavy cardboard. A common trade name is 'Gyprock'.
<i>Polygon -</i>	A plane geometric shape with more than four closed angles and straight sides, e.g. pentagon, hexagon, etc.
<i>Potable -</i>	Any water which is fit for human drinking. It may also be known simply as 'Drinking water'.
<i>Pozzuolana -</i>	Also spelt pozzolana, meaning volcanic ash or dust. It was used by the Romans up to 500 AD for the production of a type of primitive concrete. It may now be artificially produced and used in modern day concrete to improve the hydraulic properties of the concrete.
<i>Quadrilateral -</i>	A geometric shape having four closing straight sides such as a square or rectangle.
<i>R.C.D. -</i>	Residual Current Device, which is placed in temporary power boards to prevent electrocution from faulty appliances. It acts as a trip to the affected circuit. These devices are also a mandatory inclusion in all new residential buildings, mounted on the main switch board, as this was made law as of December 1991.
<i>Refractory -</i>	Any material which has the ability to repel or resist the action of heat thus preventing the fusing or bonding of materials. Refractory bricks are used to build kilns as they will not melt or fuse together when heated to very high temperatures.
<i>Slag -</i>	A non-metal by-product, consisting of silicates and calcium, produced with iron in a blast-furnace.
<i>Spanish Mission style -</i>	Also known as the Hollywood Spanish style, as it was a favourite style adopted by Hollywood movie stars. It was very popular in Australia during the 1930's with it's distinctive Spanish/Mexican pueblo finishes.
<i>Strop -</i>	The action of passing a sharp blade backwards and forwards across the palm of the hand, or a leather strap, for the purpose of removing any fine burr, which may be left after honing a plane or chisel blade.
<i>Tegular -</i>	Relates to the nature of tiles and how they are laid or lapped.
<i>Terrace house -</i>	Tall, narrow two and three storey cottages, which resemble those found in England. Common in the main cities of Australia easily identified by the tightly packed rows of joined narrow structures separated by a party wall.
<i>Terrazzo -</i>	A cast in-situ or precast product made from natural chips of stone, such as marble, quartz, etc., and coloured concrete, which when ground and polished looks very much like granite.
<i>Thatch -</i>	A roof covering made from straw, rushes or reeds used widely in Europe and Britain. Current types are treated with a fire retardant mixture.
<i>Tilt-up panel -</i>	Precast or cast-on-site concrete panels, which are lifted into place by crane and bolted together with sealed waterproof joints.
<i>Tommy bar -</i>	A small bar fitted through the handle of a screwdriver, or similar, to provide additional leverage for turning.
<i>Townhouse -</i>	A modern version of the terrace house found in suburban estates. They are usually two storeys high, not more than three, and have a small yard. They are self-contained and do not share facilities.

<i>Tracheids -</i>	These are the hollow cells formed in softwood timbers making them distinct from the vessels formed in hardwoods.
<i>Villa -</i>	A single storey attached or semi-attached suburban dwelling usually found in a designated estate.
<i>Villaboard -</i>	Thin flexible sheets made from finely ground sand, cement and a reinforcing cellulose fibre. They are approx. 6mm thick with the long edges of the sheets being ground to allow taping and setting. Used mainly for wet area linings.
<i>Vitrified -</i>	Clay products which have been fired to high temperatures in a kiln to allow the particles to fuse and close the pores.
<i>Wattle and daub -</i>	An early form of wall construction used for settlers huts consisting of acacia or wattle twigs plastered together with mud or clay.

FURTHER READING

Archer John, 1987, *Building a Nation*, William Collins Pty Ltd, Sydney.

Australian Standards Committee, 1985, *AS 1100.301 - 1985 Architectural drawing and AS 1100.301 Supplement 1 - 1986*, Standards Association of Australia Homebush, Sydney.

Barrington, J., D. Mylius & S. Arden, 1989, *Book 1 Practical Australian Carpentry, Framing and Construction*, McGraw Hill, Sydney

Bootle, K.R., 1983, *Wood in Australia*, McGraw Hill, Sydney.

Brown, B. and H. Slatyer, 1985, First published 1958, Second edition 1966, Third edition 1975, Fourth edition 1981, Fifth edition 1985, *The Australian Carpenter and Joiner - Volume 1*, Standard Publishing Co Pty Ltd, Victoria.

Calvert, R. E., 1986, *Introduction To Building Management*, Butterworths, Norfolk

Lewis, Miles., 1989, *National Trust - Physical Investigation of a Building - Technical Bulletin 9.1*, National Trust of Australia, Melbourne.

Matthews, John, 1993, *Health and Safety at Work*, Pluto Press, Leichhardt.

National Committee on Rationalised Building, 1994, Fourth edition, *Glossary of Building Terms*, Standards Australia, Sydney.

NBCITC, 1985, Basic Training Manual 15.2: *Painting and Decorating - Painting Equipment, Applications and Scaffolding*, Australian Government Publishing Service, Canberra.

Reekie, R. Fraser, 1976, First published 1946, Second edition 1969, Third edition 1976, Reprinted 1978, 1980(twice), 1981, 1982, 1985, *Draughtsmanship - architectural and building graphics - Third edition*, Edward Arnold limited, London.

Spencer, A., G. Powell, and D. Hudson, 1982, *Materials for Construction*, Reston Publishing Company Inc., Reston.

Standards Association of Australia, 1974, *AS 1339-1974: Manual Handling of Materials*, Standards Australia, North Sydney.

Standards Association of Australia, 1983, *AS 1319-1983: Safety Signs for the Occupational Environment*, Standards Australia, North Sydney.

Stapleton, M. and I. Stapleton, 1997, First edition, *Australian House Styles*, The Flannel Flower press Pty Ltd, Mullumbimby, NSW.

Teachers of Building, First Edition – 1996 Reprinted 1997, 1998, 2nd Edition – 1999, *Basic Building and Construction Skills*, Addison Wesley Longman Australia Pty Ltd, South Melbourne.

Ward-Harvey, K., 1984, *Fundamental Building Materials*, Sakoga Pty Ltd, Mosman NSW.

Wright, David, 1983, *Australians at Work*, Pitman Publishing, Carlton.

VIDEOS

Construction and Transport Division, Dressing Timber (CTV02), Grinding and Sharpening Planes, Blades and chisels (CTV12), Housing and Halving Joints, (CTV13) available from Resource Distribution, Yagoona.

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